MARINE CORPS
WARFIGHTING LABORATORY

Telepresent Rapid Aiming Platform (TRAP) is a joint Marine Corps Warfighting Lab (MCWL)/Naval Surface Warfare Center (NSWC), Dahlgren effort to access the military utility of a lightweight remote operate weapon mount.

Background: The TRAP system was developed in the mid 1990's to provide a remote weapon platform primarily for civilian law enforcement. This technology came to MCWL's attention in 2001. A limited technical assessment (LTA) was undertaken to access the military applications of this capability. During initial testing it was determined that a number of modifications and improvements were necessary to adequately test this capability in a military context.

- Power supply conversion to standard BA5590 military battery, 24v military vehicle power, and shore power (110vdc).
- "Drop in" capability to allow the use of standard USMC weapons with out modification.
- 360-degree traverse capability with lock outs for safety.
- Network controller to allow multiple systems to be controlled from a common location. This required converting the system from analog to digital format.

Description: The current T-250 system can accommodate the M240G machine gun, M249 Squad Automatic Weapon, and M-82 .50 caliber Special Application Scoped Rifle as well as the M-16A2/A4 service rifle. The weapons are placed in the system's cradle, which can be mounted on an M3 tripod or standard vehicle pintle adapter. The weapon can be controlled from up to 100 meters away via a cable link to a hand held controller. The modular optics package includes a wide-angle search camera with 40X zoom capability, a thermal camera, and a gunsight camera slaved to either a riflescope or hologram sight. Aiming adjustment resolution are in increments as small as 1/10th minute of angle (1/10th inch at 100 yards). The controller has the capability to switch between cameras, pan, tilt, arm, and fire the weapon. Future modifications planned for FY-05 are a 360-traverse capability, network controller, and improved optics tailored to remote applications.

TELEPRESENT RAPID AIMING PLATFORM

fact sheet

II MEF will conduct an operational evaluation of this system during training and deployment to Iraq.

Benefits:

- Allows employment of light weapons from an otherwise un-tenable position.
- Places the weapon's operator in a covered and concealed position.
- Enhanced surveillance and intelligence gathering capability.
- Provide for efficient use of manpower for fixed sight security through networked operation of multiple weapons.

Deliverable Products:

- Study report to Marine Corps Combat Development Command (MCCDC) on the utility and viability of lightweight remote operated weapons capability.

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